A CROSS SECTIONAL STUDY ON THE HEALTH SEEKING BEHAVIOUR OF WOMEN WITH SEXUALLY TRANSMITTED DISEASES IN THE REPRODUCTIVE AGE GROUP IN CHENNAI, MARCH & APRIL 2004

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I thank God who with His Graciousness and Blessings has helped me to complete the study successfully.

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I owe it all to the women who took me into their confidence and shared their most personal feelings.

CONTENTS

CERTIFICATE

This is to certify that the dissertation titled **A CROSS SECTIONAL STUDY ON THE HEALTH SEEKING BEHAVIOUR OF WOMEN WITH SEXUALLY TRANSMITTED DISEASES IN THE REPRODUCTIVE AGE GROUP IN CHENNAI,** is a bonafide work done by **Dr.R. Arunmozhi.** It is a regular systematic study done under my guidance and supervision and submitted for the ensuing M.D. BRANCH XV (COMMUNITY MEDICINE) Examination August 2004 of Tamil Nadu Dr.M.G.R. Medical University, Chennai.

Place :

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DECLARATION

I, solemnly declare that the dissertation titled **A CROSS SECTIONAL STUDY ON THE HEALTH SEEKING BEHAVIOUR OF WOMEN WITH SEXUALLY TRANSMITTED DISEASES IN THE REPRODUCTIVE AGE GROUP IN CHENNAI,** was done by me at the Institute of Sexually Transmitted Diseases at Govt. General Hospital, Chennai under the guidance and supervision of Dr.R. Murali M.D. Director, Institute of Community Medicine, Madras Medical College, Chennai.

The dissertation is submitted to the Tamilnadu Dr. M.G.R. Medical University towards the partial fulfilment of the requirement for the award of M.D. degree (Branch XV) in Community Medicine.

Place :
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1. INTRODUCTION

Sexually transmitted diseases cause considerable morbidity, particularly in relation to the reproductive health of women. It is associated with increased transmission of HIV. Many STDs like syphilis and gonorrhoea are treatable. Yet millions of cases are left untreated, leading to continued transmission and serious sequelae. Hence the control of sexually transmitted diseases is recognized as a global priority.

Biological differences between women and men along with gender differences in social behaviour, work to the disadvantage of women. This is best illustrated in the case of sexually transmitted diseases. Women are biologically more susceptible to sexually transmitted diseases than men. Also, women are more likely to be asymptomatic and therefore less likely to seek treatment.

Women may not recognize the symptoms of a health problem, or may not consider it serious enough to seek medical help. Further, even where symptoms are recognized, decisions about where, when and how to seek help and/or treatment will depend upon cultural and social circumstances. More commonly , Indian women do not perceive themselves as entitled to invest in their well-being.

"Health seeking" is a *dynamic process*. Factors like recognition of symptoms, decision making, medical encounter, evaluation of outcomes, re-interpretation of illness are sequentially organised during an illness and hence determine the course of therapy. The factors influencing decision making are multiple and range from socially sanctioned gender roles, influence of peer pressure to deliberations about economic benefits. This reveals how complex health seeking behaviour in reality is.

The accessibility of treatment services and the availability of multiple sources of care clearly play a role in attracting people with or at risk of sexually transmitted diseases. However, social stigma

associated with STDs will have a major influence on the pattern of presentation of the patients to the various health care providers. The quality of care as well as the affordability impose further restrictions on their treatment seeking behaviour.

In order to increase the proportion of people with sexually transmitted diseases seeking counselling and treatment, programme planners need to know more about the factors that influence health seeking behaviour in relation to sexually transmitted diseases.

2. OBJECTIVES

1. To study the pattern of health care seeking behaviour of women with Sexually Transmitted Diseases in the reproductive age group (15 - 49 yrs), attending the STD Outpatient Department at Government General Hospital, Chennai.

2. To assess their knowledge on the spread and prevention of Sexually Transmitted Diseases and HIV/AIDS.

3. To assess the knowledge and attitude regarding condom use in these women and its practice by their partners.

3. JUSTIFICATION

- The prevalence rate of STI in the Indian urban population ranges from 1.2% to 10% and in rural population about 7% **(UNAIDS, 2000).**

- Sexually transmitted diseases cause considerable morbidity, particularly in relation to the reproductive health of women, and are also associated with increased transmission of HIV **(Cameron et al. 1991; Jessamine et al. 1990; Nsubuga et al . 1990; Grosskurth et al. 1995).**

- Studies show that people with current or past STDs are 2-9 times more likely to get infected with HIV. The lesions caused by untreated ulcerative STDs such as herpes, syphilis and chancroid provide an easy entry for HIV **(UNAIDS, 2000).**

- Women and men do not have equal access to and control over resources such as money, transport and time. Because the decision-making power within the family is unequal, with men enjoying privileges that women are denied, women's access to health services is restricted. They may be allowed to decide on seeking medical care for their children, but may need the permission of their husbands or elders within the family to seek health care for themselves. Restrictions on women's physical mobility, common in many parts of India, often makes it imperative for women to be accompanied to a health facility by a male family member **(Sundari Ravindran T K).**

- The stigma attached to visiting an STD clinic further discourages women from seeking

treatment **(Sundari Ravindran T K).**

- Delays in seeking and obtaining diagnosis and treatment can allow for continued transmission and greater probability of adverse sequelae.

- An understanding of health seeking behaviour would help assist programme planners in the development of more accessible and effective services. Such knowledge is therefore important if STD control programmes are to be effective.

4. LITERATURE REVIEW

4.1 HUMAN BEHAVIOUR AND HEALTH

Health is influenced by behaviour and behaviour is modifiable **(Conner and Norman 1996b)** Understanding human behaviour is a prerequisite to improve health **(S Hausmann-Muela et al 2003).**

4.2 IMPACT OF SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases impose an enormous burden of morbidity and mortality in many developing countries, both directly through their impact on reproductive health and indirectly by facilitating the sexual transmission/acquisition of HIV infection.

The poor and uneducated in a society are more likely to contract STDs and other infectious diseases since they are deprived of their rights to information on risk behaviour, are too illiterate to understand prevention messages, and have less access to quality services.

Early diagnosis and prompt and effective treatment of sexually transmitted diseases is clearly the need of the hour not only because it can decrease the overall morbidity due to these infections, but can also significantly reduce the incidence of HIV infections.

4.3 IMPACT OF HIV

Until recently, it was commonly assumed that HIV infection was concentrated among urban sex workers and their clients and in drug injectors living in a few states. There is now evidence that the virus is firmly embedded in the general population. This is substantiated by sentinel surveillance. Given its large and increasing population, India is expected to have the largest concentration of AIDS affected individuals in the world if the current rate of transmission continues.

Unlike other infections, HIV selectively and disproportionately targets two groups - the young adults and the very poor, economically marginalized populations **(UNAIDS, 2000)**.

In India, behavioural studies conducted by NACO show that unprotected and high rate of partner exchange through casual and commercial sex workers is the driving force for the rapid spread of HIV among the female sex workers and their clients who then pass it on to their wives.

4.4 STD AND HIV

Implications of high risk behaviour for the transmission of STDs and HIV/AIDS have been pointed out by **Orubuloye 1993, Akkinawo 1996, Orubuloye, Caldwell and Caldwell 1993.**

In the developing countries, a past history of sexually transmitted diseases has been found in many AIDS patients **(Pepin et al. 1989).**

Interventions to treat STDs have been reported to reduce HIV incidence. Interventions to improve treatment-seeking behaviour for STDs may have an impact on the duration and the prevalence of STDs **(Okonofua FE et al 2003).**

4.5 WOMEN AND HIV

The epidemic continues to shift towards women and young people; 25% of HIV infections are estimated to be among women, with the female male ratio of infection rising sharply.

Increased HIV infections in the reproductive age group is accompanied by increase in vertical transmission and pediatric AIDS. Majority of women do not have any risk factor other than being married to their husbands.

For women, risk of HIV infection during unprotected sex is two to four times that of men. Semen has higher concentrations of virus than the vaginal secretions of women.

4.6 ADOLESCENTS AND STD/HIV/AIDS

Adolescence is normally a healthy period of life. For some young people it is a period of experimentation with risky behaviour. For others, it marks the development of habitual risk behaviours that persist into adulthood. Of special concern is adolescent involvement in sexual behaviours that increase the risk of infection with HIV and sexually transmitted disease (STDs). Although the use of condoms can reduce the risk of sexually transmitted diseases, most sexually active adolescents do not consistently use condoms **(Jemmott LS 2000).**

Young people (10 to 24 years) are estimated to account for upto 69% of all new HIV infections worldwide **(UNAIDS 1997).**

4.7 ADOLESCENT SEXUAL BEHAVIOUR AND RELUCTANCE TO DISCUSS SEX

There is reluctance to address sex and sex-related issues, and the denial of the existence of risk behaviour, particularly among young people, increases the transmission of sexually transmitted diseases and HIV. In general, the topic of sex is taboo and is closely linked to morals and promiscuity. All this leads to inadequate policy support for sex education in schools and for-out-of -school youths, as well as to a denial of the right to information and services. Out of 121 million Indian children of primary school age, around 109 million are currently in school. But by the time sex education enters their curriculum, half of all boys and 60 percent of girls would have dropped out of school.

A recent study by marketing and research group in15 Mumbai schools found that out of 430 students at least 13% between 12 and 15 yrs had sexual experiences **(Bhende,A A 1994).**

4.8 HEALTH SEEKING BEHAVIOUR

Health seeking behaviour can be defined as any activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy (**borrowed from Dasl and Cobb's 1996 definition of 'illness behaviour'**).

Factors that would influence health seeking behaviour are

- Systems of lay knowledge which form the interpretation of particular symptoms.
- The perceived threat of disease.
- The extent to which symptoms disrupt family work and other social activities.
- The availability of treatment resources, physical proximity, psychological and monetary costs of taking action (including time, money, effort, stigma, social distance, feeling of humiliation

and the like).

- Beliefs in the efficiency of recommended health care.

What facilitates the use of health services, and what influences people to behave differently in relation to health has long been of interest to researchers.

The decision to engage with a particular medical channel is influenced by a variety of socio-economic variables like sex, age, social status of women, the type of illness, access to services and perceived quality of the service **(Tipping and Segall 1995).**

People's health seeking behaviour, to a larger extent, depends upon their understanding and interpretation of the causes of their sickness. Where people accept the germ theory of disease causation, their attitude to search for a cure to a disease will be different from the attitude of those who attribute the disease to a supernatural cause **(Kofi Awusabo-Asare et al 1997).**

Inhibition, time and distance were important considerations for selecting a health facility **(Roy V et al. 1998).**

Treatment costs are not only an obstacle for adequate health seeking of the poor; they also signify a higher burden for the poorer households compared to the more affluent **(Schellenberg *et al*.,2003).**

It is disturbing to note that the ill, travel past a free or subsidized local public health facility to get to an alternative source of care at which they often pay a considerable amount for health care. That a person bypasses a facility is almost certainly indicative either of significant problems with the quality of care at the bypassed facility or of significant better care at the alternative source of care chosen **(Akin J et al 1999).**

The various studies which categorise the types of barriers or determinants which lie between patients and services are presented below:

Table 1 ILLUSTRATION OF CATEGORIZATION OF HEALTH CARE SEEKING FACTORS ACROSS STUDIES

Author	Geographical	Social	Economic	Cultural	Organisational
Kloos (1990)	Geographical	Socio-economic		Cultural	
Yesudian (1988)		Demographic	Economic	Cultural	Organisational
Leslie (1989)		User factors			Service factors
Anderson (1995)	Environmental	Predisposing and enabling factors			Health system

Table 2 TYPES OF MEASURES FREQUENTLY USED TO CATEGORISE HEALTH CARE SEEKING FACTORS

Category	Determinant	Details	Sphere
Cultural	Status of women	Elements of patriarchy	'Cultural propriety'
Social	Age and sex		
Socioeconomic	Household resources	Education level Maternal occupation Marital status Economic status	*informal*
Economic	Costs of care	Treatment Travel Time	Physical
	Type and severity of illness		
Geographical	Distance and physical access		*infrastructure*
Organisational	Perceived quality	Standard of drugs Standard of equipment	Technical
		Competence of staff Attitudes of staff	Staffing
		Interpersonal process	Interpersonal
			formal

When an individual makes a decision in relation to their health, they weigh the potential risks or benefits of a particular behaviour. But they do so in a way that is mediated by their immediate practical environment, their social rootedness and their whole outlook on life more generally.

4.9 HEALTH SEEKING BEHAVIOUR MODELS

Andersons Health Care Utilisation Model was elaborated by **Kroeger (1983)**. He proposed an interrelated explanatory variables like an individual's traits or predisposing factors like age, sex, status in the household, formal education, occupation along with characteristics of the disorder and their perception, chronic or acute severe or trivial etc.. and characteristics of the service like accessibility, acceptability, quality, communication as playing a role in guiding the election of health care resources.

Social cognition models were developed to study the health seeking behaviour like the 'health belief model' by **Sheeran and Abraham (1996).** Health belief models focus on two elements: 'threat perception' and `behavioural evaluation'. Threat perception depends upon perceived susceptibility to illness and anticipated severity. Behavioural evaluation consists of beliefs concerning benefits of a particular behaviour and the barriers to it.

4.10 WOMEN AND HEALTH SEEKING BEHAVIOUR

The obstacles which women face with regard to health seeking behaviour are systematized into four

categories by **Nash Ojanuga & Gilbert (1992):**

- Institutional barriers: unequal treatment by health providers
- Economic barriers: different access to resources
- Cultural barriers: social status of women which situates them in socially inferior positions, male doctors who attend women with sensitive health problems, etc.
- Education barriers: women having less access to education (eg. Seen in literacy rates).

4.11 STD AND HEALTH SEEKING BEHAVIOUR

Among those with genital ulcer disease few seek treatment and many continue sexual activity despite symptoms without informing their partners **(Morgan D Mahe et al. 2001).**

4.12 STD AND MULTIPLE SERVICE PROVIDERS

Often illness symptoms are diffuse and ambiguous, and illness course or treatment outcomes are unexpected. Facing uncertainty, people follow a trial and error search for relief and meaning **(Ryan, 1998)**. Under these circumstances, even good biomedical knowledge would not affect behaviour.

Typically, observed treatment sequences with alternating use of traditional and biomedical resources follow a logic of interpreting and reinterpreting illness, using merged concepts from biomedicine and local beliefs **(Hausmann-Muela et al., 1998).**

Ethnographic studies show that persons follow predefined patterns (do not act randomly), both in their first therapeutic elections and when they move from one treatment modality the next **(Garro, 1998: Ryan, 1998).**

In urban areas of India, the relative dependence on public markets was low and less variable than in rural areas. About 32 percent of those who reported sick had used public facilities for treatment. Women in the reproductive age group had a tendency to resort to private health care in all parts of India **(Shariff A 1995).**

The public health care utilization was high in case of Hindus, those living in eastern parts of India and those suffering from infectious diseases in rural and those from non-infectious diseases in urban areas. The health services should be placed as close to the people as possible to ensure maximum benefit to the community that is to be served **(Shariff A 1995).**

The paper by **Jagdish Bhatia et al (2001)** stresses the overall importance of private sector in health care provision. Even women from the poorest quartile relied more on private than public sector practitioners.

Women are quite happy to travel further to attend a private, more expensive service that is perceived to be of 'good quality'.

A consistent finding in many studies is that, for some illnesses, people will choose traditional healers, village homeopaths, or untrained allopathic doctors above formally trained practitioners or government health facilities **(Ahmed et al 2001).**

4.13 TRADITIONAL HEALERS AND HEALTH SEEKING BEHAVIOUR

In developing countries, constrained access to health care facilities reinforces the need to focus on local

solutions in the management of illnesses.

The influence of traditional healers is not limited to rural areas alone. Indeed, in urban areas, traditional healers have a compelling presence. The twin problem of HIV/AIDS and tuberculosis has pulled traditional healers into the eye of the storm. Thus traditional healers have a potentially important role to play in the delivery of health care, especially in resource poor areas.

An understanding of what people do to get a remedy when they have symptoms of STD can assist programme planners through directing health education initiatives, approaching alternative health providers (traditional healers, pharmacists etc) with a view to involving them in the programme, and through removing or reducing barriers to presentation to health clinics. **(WHO 1995).**

In many cases prejudice on the part of the health policy makers against traditional aspects of their own cultures has precluded understanding of traditional therapies. However, health care for the poor cannot be satisfactorily provided without a basic understanding of the traditional and local practices of the intended beneficiaries and the value and belief systems that underpin health-related behaviour **(Pillsbury 1978).**

4.14 PROGRAMME EFFECTIVENESS

Programmes would be most effective if they are based on local assessments of

a. the epidemiology of STD in the population.
b. health seeking behaviour in the population.
c. current management of STD in health care settings.

By placing socially rooted studies of health seeking behaviour into such a framework we will begin to see the value of understanding health seeking behaviour not as something that resides in the individual, but as a reflection of wider societal processes and something that is related to the health system. Rather than concentrating on the individual as the potential source of solutions, this shifts the gaze onto the wider contextual setting **(Sara MacKian, 2002).**

5. MATERIALS AND METHODS

5.1 STUDY DESIGN : Cross Sectional study

5.2 STUDY PERIOD : March and April 2004.

5.3 STUDY POPULATION :

Women in the age group of 15-49 years with symptoms of sexually transmitted disease attending the Sexually Transmitted Diseases Out-patient Department of Government General Hospital, Chennai.

5.4 SAMPLING TECHNIQUE & SAMPLE SIZE :

Convenient sampling of all women who attended the Sexually Transmitted Diseases OP during the study period. A sample of 275 women was studied.

5.5 METHODOLOGY : The study was done in 3 phases.

5.5.1 : Phase I

a. Permission : The permission of the Dean, Madras Medical College, was first sought and obtained, to conduct the study. After which, the permission of the Director, Institute of Sexually Transmitted Diseases, GGH, Chennai, was obtained.

b. Questionnaire development : A structured questionnaire based on the **HIV / AIDS / STD Behavioural Surveillance Surveys, Questionnaire for 'Use with Adult Target Groups aged 15-49 years'**, designed by the **Family Health International**, was developed with suitable modifications for this study.

The questions have been studied under the following sub headings :

- Socio Demographic profile
- Knowledge on HIV/AIDS
- Sexual Relations and Condom Use
- Health Seeking Behaviour.

c. Pre testing : The questionnaire was pre tested in January 2004 on 25 patients. Necessary corrections were incorporated and the final questionnaire developed.

5.5.2 : Phase II

Data Collection : Patients in the STD Out-patient Department were first informed of the purpose of the study and their willingness sought. After ensuring privacy and developing a rapport with the individuals details pertaining to the study was collected with help of the questionnaire administered by the investigator.

5.5.3 : Phase III

a. Data Entry : The data was collected and entered in a Microsoft Excel Worksheet.

b. Data analysis : Data was analysed using Microsoft Excel and SPSS 10.0.

PHOTO 1 FEMALE OP
Institute of Sexually Transmitted Diseases, GGH, Chennai-3.

PHOTO 2 FEMALE OP
Patients in waiting area

PHOTO 3 & 4
Investigator Administering Questionnaire to Respondents

c. Write up : Summary & recommendations with mention of the limitations of the study was included, followed by bibliography.

5.5.4 : Operational definitions :

- Sexually Transmitted Infections (STIs) : Infections with sexually transmitted pathogens that may or may not cause symptoms and recognizes the asymptomatic and sub-clinical nature of these infections.

- Sexually Transmitted Diseases (STDs) : Infections with sexually transmitted pathogens that cause recognized symptoms or clinical signs in individuals.

- Non regular partner : Any sexual partner other than spouse or a regular live in partner of more than six months. Non regular partner includes commercial sex workers also.

- Health Seeking Behaviour: Any activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy.

- Early Treatment Seeking : Treatment seeking within two weeks of onset of symptoms.

6. RESULTS AND DISCUSSION

Patriarchal norms which deny women the right to make decisions regarding their reproduction expose them to otherwise avoidable risks of morbidity and mortality. Because men and women are conditioned to adhere to the gender norms prevailing in the society they live in, their perceptions of health and ill-health are likely to vary, as is their health seeking behaviour.

In order to improve the proportion of people who seek treatment for sexually transmitted diseases, programme planners need to know more facts about factors influencing their health seeking behaviour. Hence I have attempted to study the socio demographic profile of women with STD, their knowledge on HIV/AIDS, their pattern of sexual behaviour, condom use and health seeking behaviour.

6.1 SOCIO DEMOGRAPHIC PROFILE

6.1.1 Age group

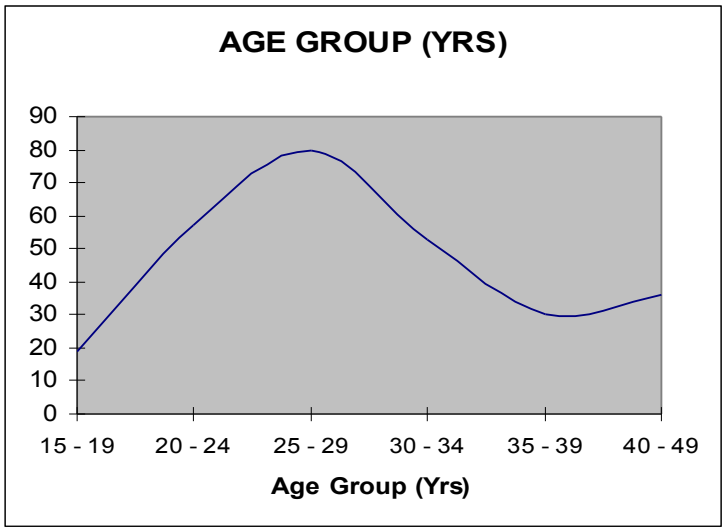


Figure 1 - AGE GROUP (YRS)

As seen in Figure 1, Fifty percent of the women with symptoms of sexually transmitted disease belong to the 20-29 years category.

6.1.2 Residence:

RESIDENCE		
Residence	Frequency	Percent
Rural	145	52.7
Urban	130	47.3
Total	275	100

Table 3 - PLACE OF RESIDENCE

The study population has an almost equal rural-urban divide (Table 3). Government General Hospital, Chennai is an apex institute in the state and a major referral centre not only for institutions in Tamil Nadu but also the neighbouring states. This fact probably explains the equal number of rural and urban patients

6.1.3 Education:

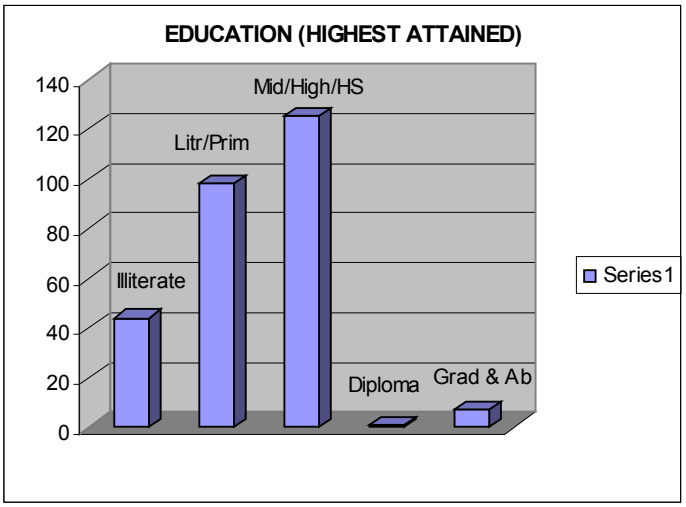


Figure 2 - EDUCATION (HIGHEST ATTAINED)

Majority of the population (81%) had attended school. While 2.9% had education above school level , 16% had never attended school. (Figure 2).

6.1.4 Occupation:

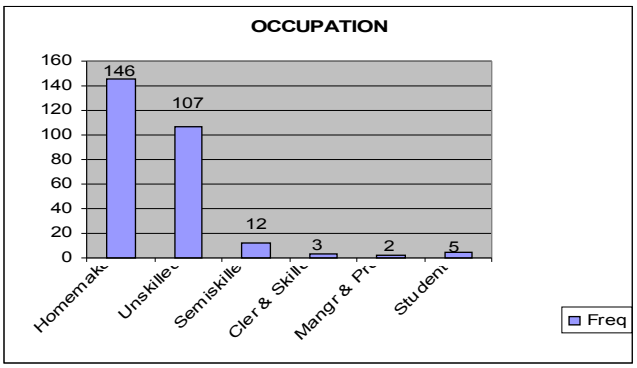


Figure 3 - OCCUPATION

Most women (92%) are homemakers or unskilled, making them economically dependant on their partners. The remaining 8% are economically independent. Of this 8 percent, 5.5% fell into the skilled category while 0.7% are Managers/ Professionals(Figure 3).

6.1.5 Income:

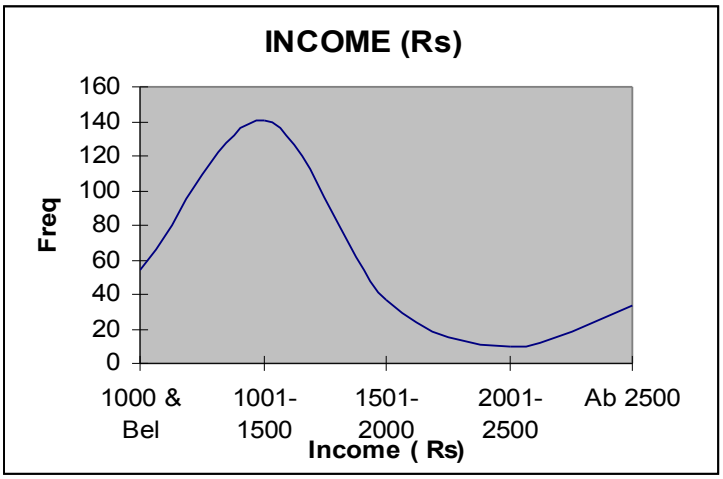


Figure 4 - INCOME (Rs)

195 (70%) of women are from households with income less than Rs.1500 (Figure 4). Though treatment for STDs is provided free of cost in government hospitals, the hidden costs like transport, loss of wages are high and limits the number of people seeking treatment or interrupts initiated therapies **(Abel-Smith, B. & Rawal, P.1992).**

6.1.6 Religion :

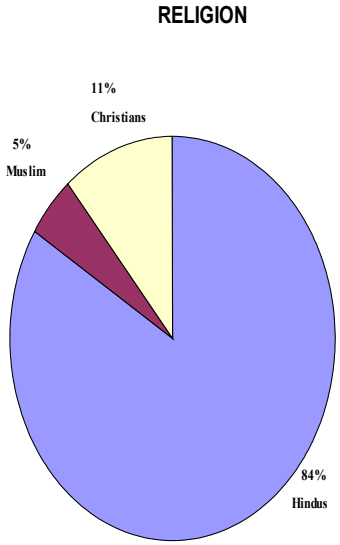


Figure 5 - RELIGION

Majority (84%) were Hindus, while Christians were 11% and Muslims only 5% (Figure 5). The study result is similar to the findings of the **National Family Health Survey 2 (1998-99)** which showed that Hindus constituted 89.1% of the population in Tamil Nadu while Muslims and Christians 5.3% each.

6.1.7 Marital Status:

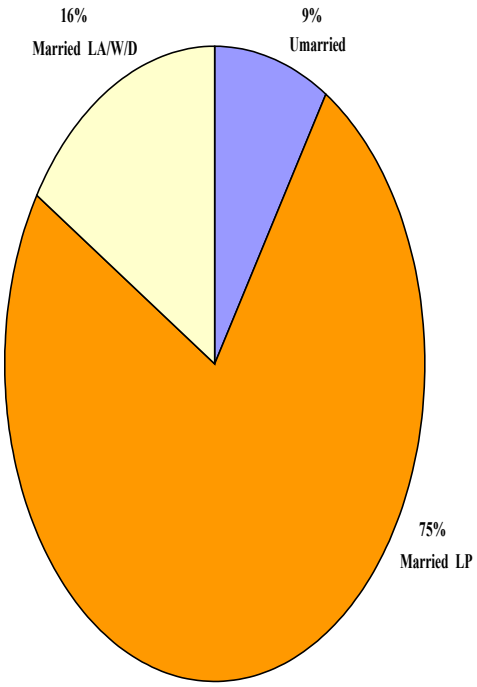


Figure 6 - MARITAL STATUS

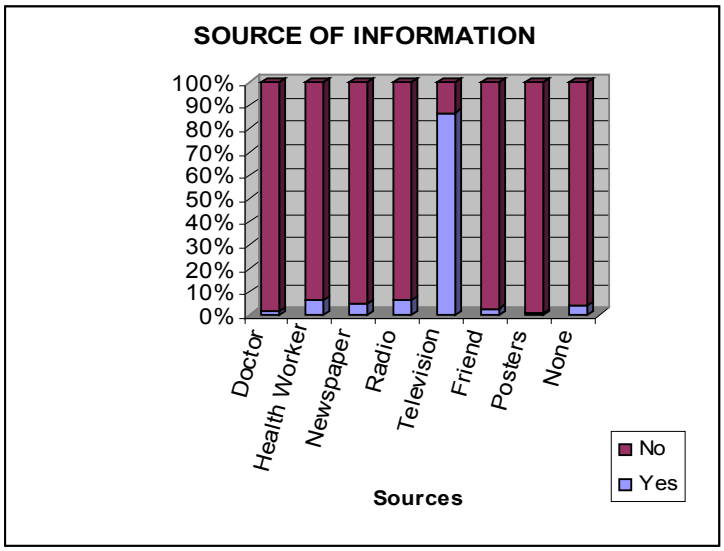
90.6% of women were married, while 9.4% were unmarried. About three fourths (73.8%) of the women were married and living with their partner. 16% were married and were either separated, widowed or divorced (Figure 6).

6.2 KNOWLEDGE ON HIV/AIDS

6.2.1 Proportion of women who have ever heard of AIDS:

264 women (96%) had heard about AIDS while only 4% had no idea about the disease. These figures are similar to the state figures stated in **NACO Behavioural Surveillance Survey 2001,** which is much higher compared to the corresponding national figures (only 70% of women were aware of HIV/AIDS).

6.2.2 Source of Information:



*** Figure 7 - SOURCE OF INFORMATION**

Television is a major source of information on HIV/AIDS and STIs (87.2%). Radio and newspaper as a source of information is only 11.3%. Only 6.6% was the health worker's contribution (Figure 7) to the public knowledge. **National Family Health Survey - 2 (1998-1999),** had also found that television accounted for 78.8 percent through which women had heard of HIV/AIDS. The survey also found that

only 3.6% had heard about HIV from the health worker, which is similar to the findings in the present study. The very low proportion of respondents that received information from a health worker points to serious lacunae in HIV education by health personnel.

6.2.3 Awareness about " Fatality of AIDS ":

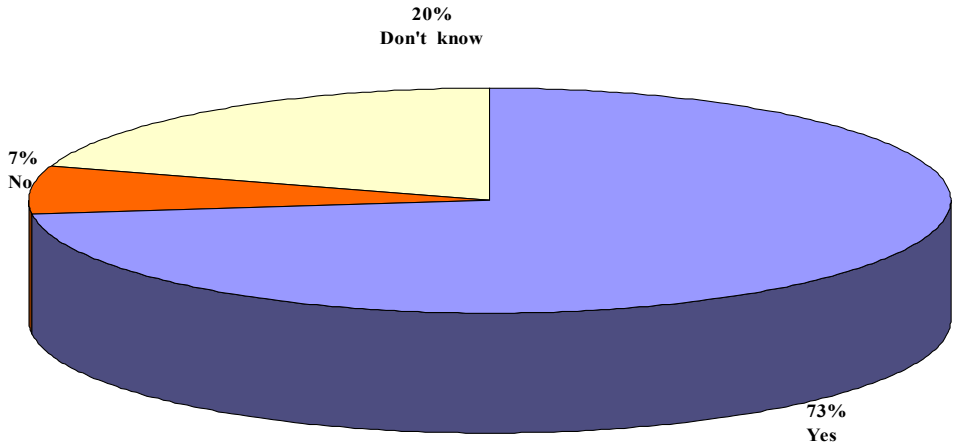


Figure 8 - Proportion Aware that AIDS is a fatal disease

73% of the patients knew that AIDS is a fatal disease (Figure 8) and about half the patients (50.9%) knew that there is no cure for AIDS.

6.2.4 Awareness about "healthy looking person having AIDS" :

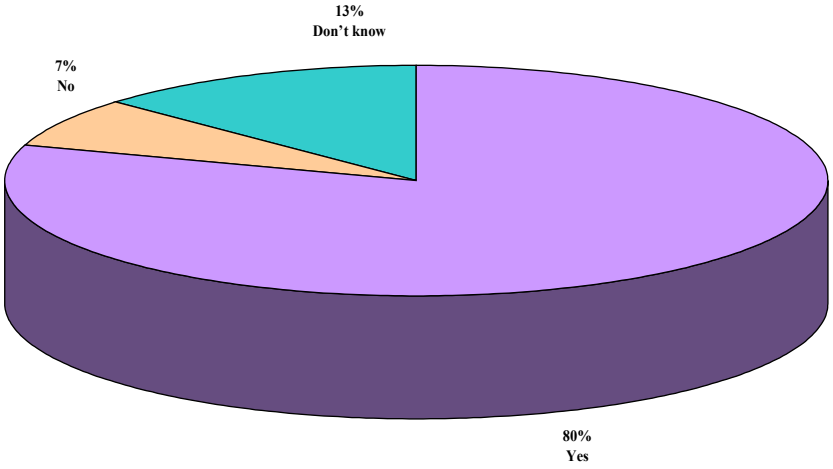
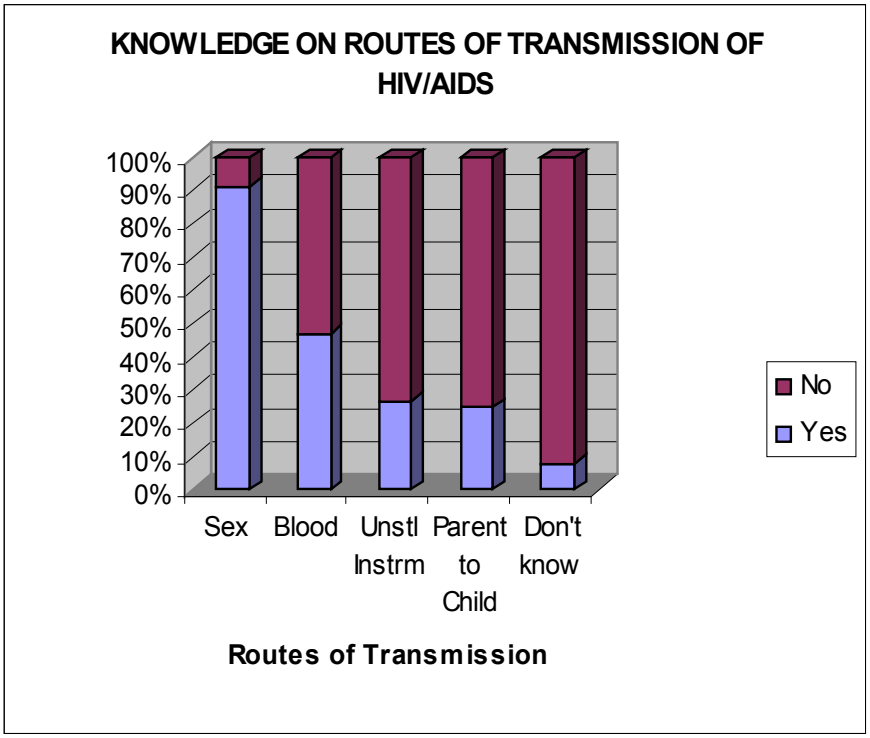


Figure 9 - PROPORTION AWARE THAT A HEALTHY LOOKING PERSON CAN HAVE AIDS

218 (80%) respondents knew that a healthy looking person can be infected (Figure 9).

6.2.5 Knowledge on routes of transmission of HIV/AIDS



** Figure 10 - KNOWLEDGE ON ROUTES OF TRANSMISSION OF HIV/AIDS*

That AIDS is an STD was known to more than 90% of the women in the present study.

That HIV can be contracted through blood transfusion was known to less than 50% in this study group.

Transmission of HIV from parent to a child during pregnancy, labour, delivery and through breastfeeding was known to only about 25% in the present study.

8% of them did not have any knowledge on the route of transmission of the disease (Figure 10).

Behavioural Surveillance Survey (2001) of the general population of India, by NACO, shows that 80% of women were aware of the sexual route of transmission of HIV/AIDS, 65.9% about transmission through blood transfusion, and 77% had knowledge on the parent to child transmission.

6.2.6 Susceptibility to AIDS:

231 (84%) respondents were aware that anybody can get infected, whereas 6.2% still believed that they are not susceptible.

6.2.7 AIDS is a preventable disease :

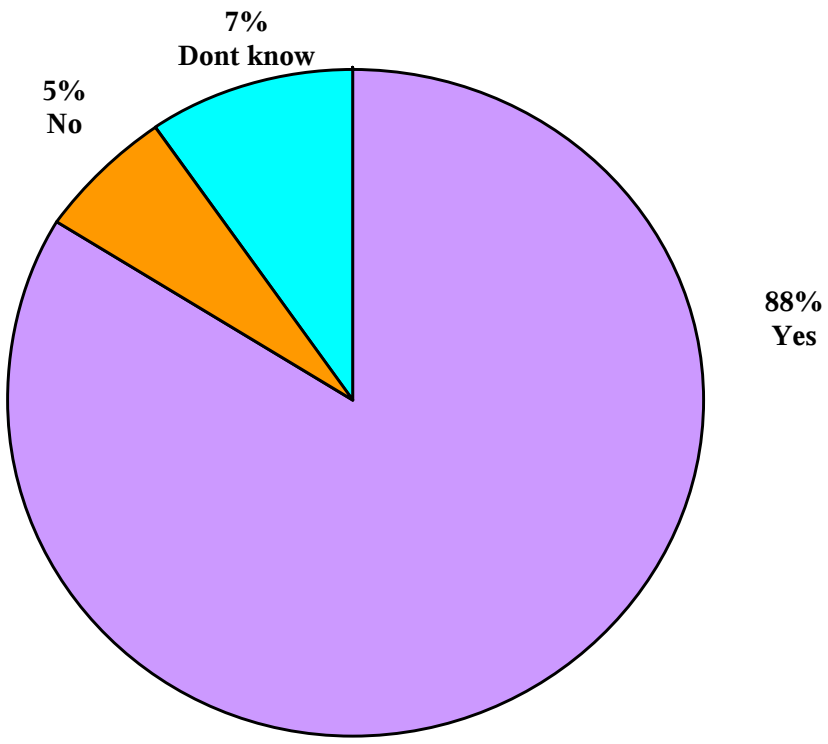
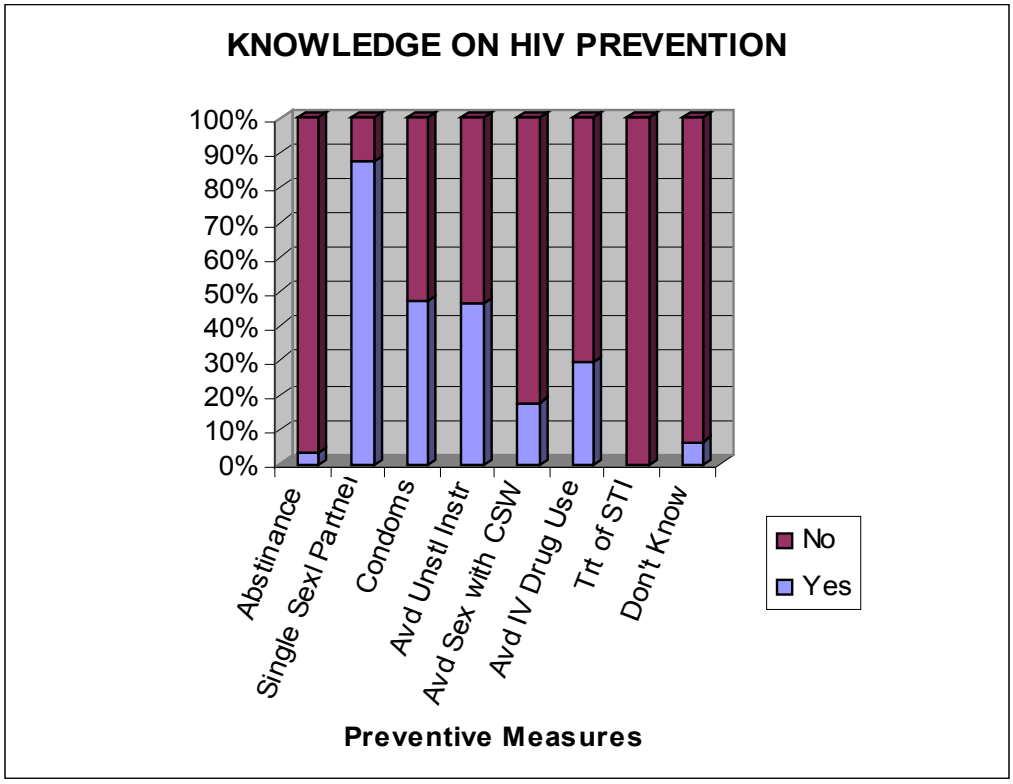


Figure 11 - PROPORTION OF WOMEN AWARE THAT AIDS IS A PREVENTABLE DISEASE

88% knew that AIDS is a preventable disease (Figure 11)

6.2.8 Knowledge on HIV Prevention:



** Figure 12 - KNOWLEDGE ON HIV PREVENTION*

Reducing the number of sex partners has been widely promoted as one of the prerequisites of safe sex practices that can effectively prevent HIV spread. 77.2% of women were aware of a single faithful uninfected partner **(NACO Behavioural Surveillance Survey 2001).**

Single sexual partner as the best method of prevention of HIV/AIDS was known to 88% of the women in this study. Consistent condom use as a preventive method to avert HIV transmission was known to only 47% of women (Figure 12).

6.3 SEXUAL RELATIONS AND CONDOM USE

6.3.1 First Sexual Partner:

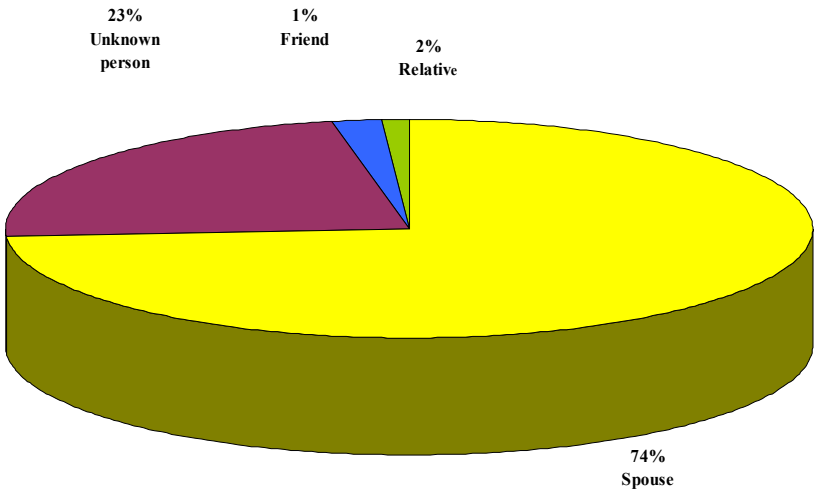


Figure 13 - FIRST SEXUAL PARTNER

95% (n = 262) of the respondents have had sex. Spouse was the first sexual partner in 73.3% of patients, while **23.3% had an unknown first sexual partner**. Friends and relatives accounted for 3% of the first sexual partner.

Of those who have had sex **7.3% were forced into the act** (Figure 13). When a women is a reluctant partner the risk of damage to the genital mucosa is great, thereby increasing the risk of HIV.

6.3.2 Women whose regular partner have other sexual partners :

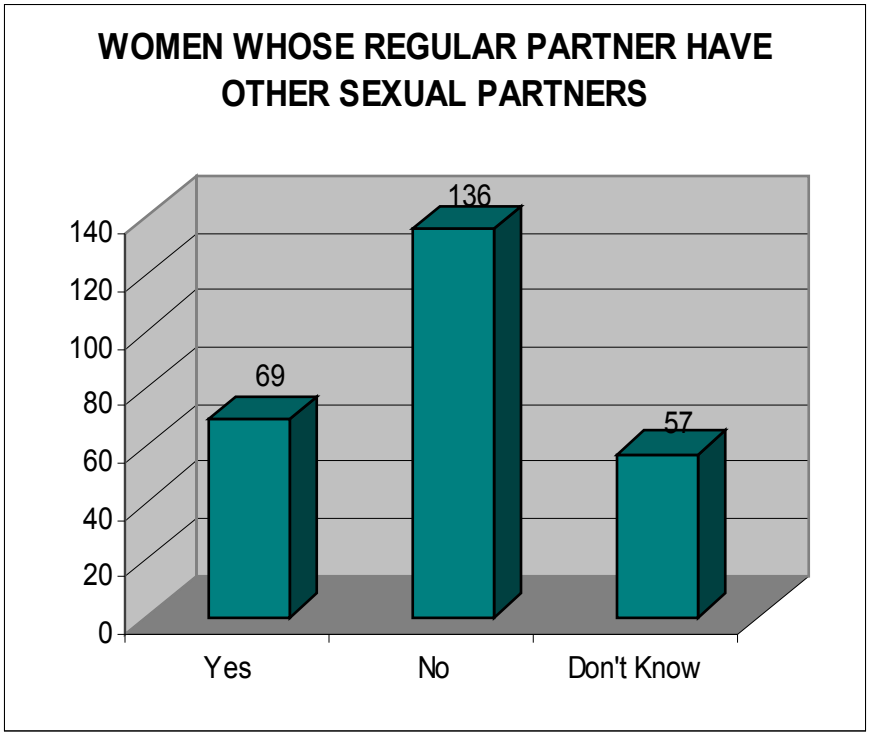


Figure 14 - WOMEN WHOSE REGULAR PARTNER HAVE *OTHER SEXUAL PARTNERS*

26.3% knew that their regular partner had sexual partners other than themselves (Figure14).

Social norms which accept extra-marital and pre-marital sexual relations in men as 'normal' and women's inability to negotiate condom use in their partners make women more susceptible to sexually transmitted diseases.

A study of STD clinic patients in India (1992) indicated that a third of the women, all in monogamous married relationships, were infected by their husbands, while the majority of the male patients were infected by commercial sex workers and casual sexual partners.

6.3.3 Women who have sexual partners other than their regular partner :

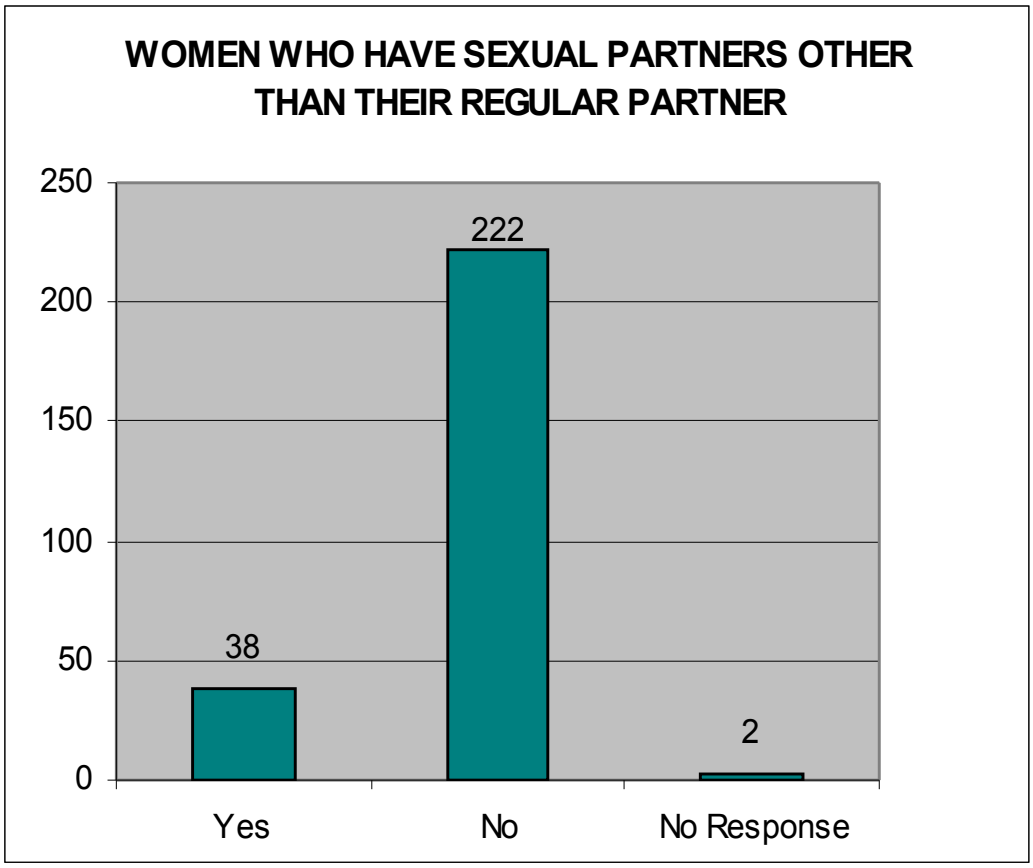


Figure 15 - WOMEN WHO HAVE SEXUAL PARTNERS OTHER THAN THEIR REGULAR PARTNER

About 14.5% of patients had more than one sexual partner (Figure 15). The high risk behaviour of these women places them at a greater risk of developing HIV/AIDS.

6.3.4 Condom awareness and use of condoms:

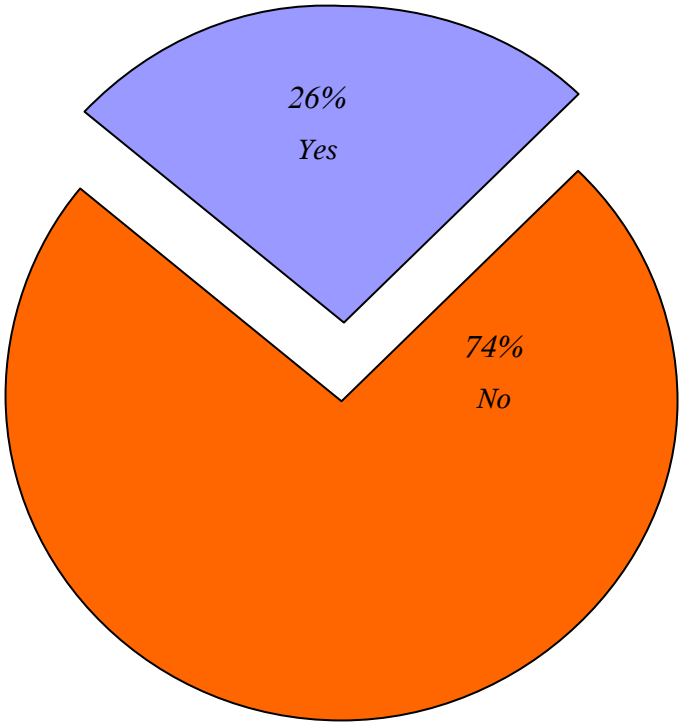


Figure 16 - CONDOM USE

Though 68.7% of the respondents knew about condoms, only 26.3% had ever used a condom (Figure 16). In a study of the prevalence of and risk factors for HIV infection in Tamil Nadu, India (1994-1995) covering a population of about 97,000, less than 2 percent of married men were found to be condom users **(Ramachandran P 1992).**

To insist on condom use can be interpreted as a lack of trust by women in their partners or a questioning of their behaviour. Though most of these women are educated, the poor negotiating power with respect to safe sex practices with their partners and the greater susceptibility of women to sexually transmitted disease places them at a disadvantage.

6.3.5 Reasons for condom use:

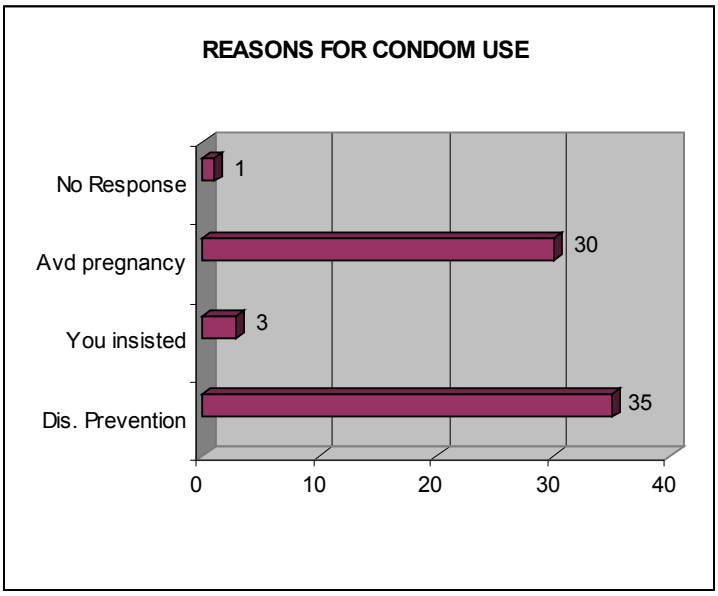


Figure 17 - REASONS FOR CONDOM USE

Of those who had used condoms, a large number of respondents (43.6%) had used it as a spacing method. 50% had used it for disease prevention (Figure 17)

6.3.6 Consistency of condom use and knowledge on where to obtain condoms :

Only 39% of the people who had used condoms were consistent users. Only half of the respondents knew where to obtain condoms (Table 4 and 5).

Table 4 - CONSISTENCY OF CONDOM USE

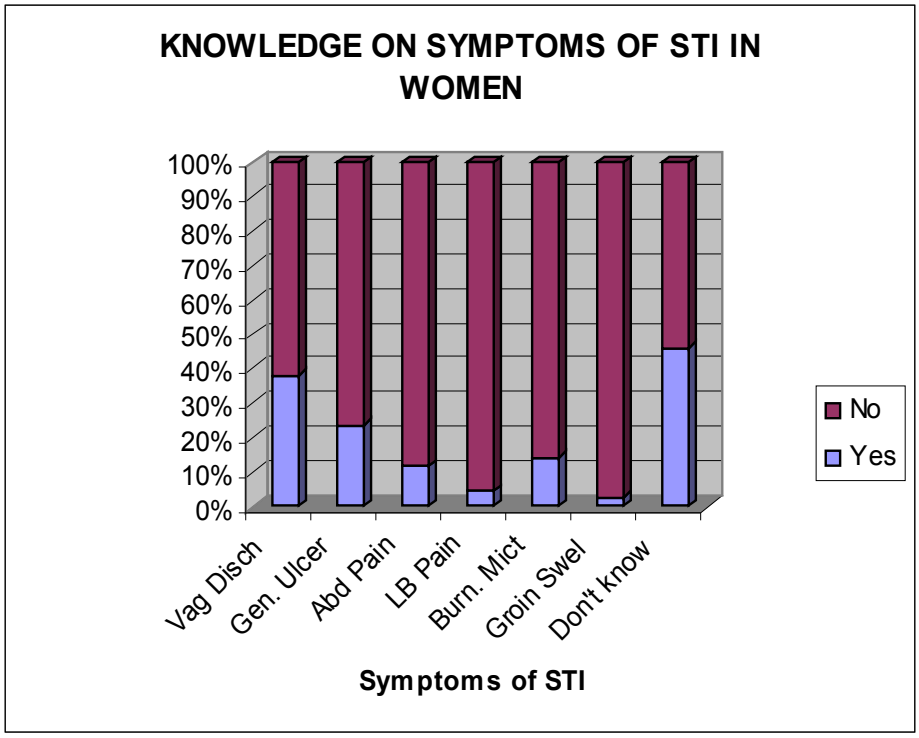
Table 5 - KNOWLEDGE ON WHERE TO OBTAIN CONDOMS

6.4 HEALTH SEEKING BEHAVIOUR

6.4.1 Knowledge on symptoms of STI in women :

In any cultural context, a precondition of most health seeking behaviour is recognition of symptoms. Of key significance, therefore, is the way in which symptoms are interpreted by the affected individuals and by those around them

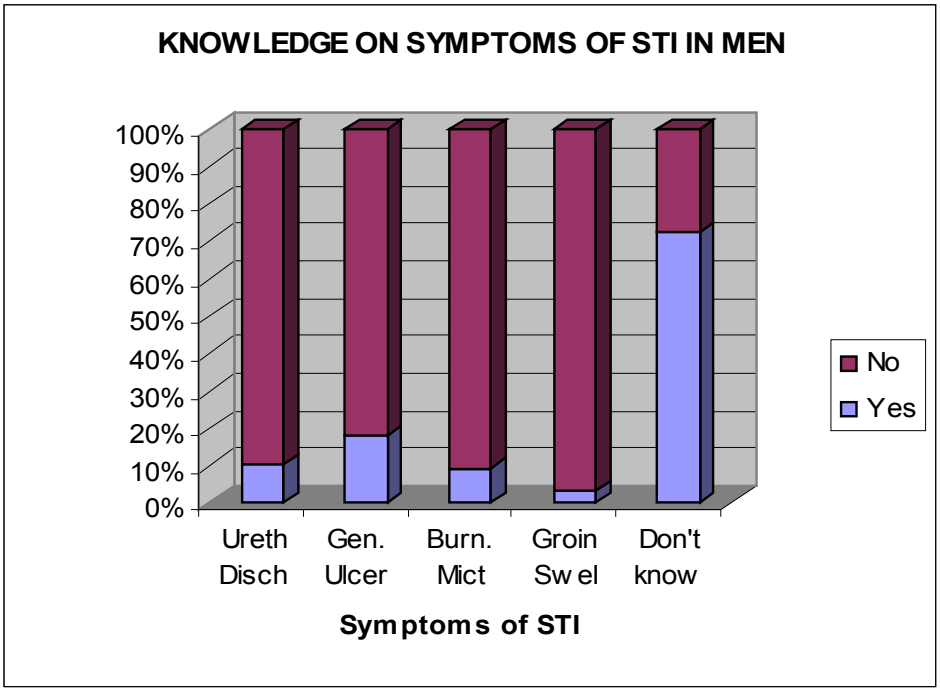
(Mechanic and Volkart 1961; Scambler et al 1981; Calnan 1987)



** Figure 13 - KNOWLEDGE ON SYMPTOMS OF STI IN WOMEN*

46% of the respondents in the present study did not know about the symptoms of STI in women .Only 38% of women knew that vaginal discharge is a symptom of STI in females (Figure 18).

6.4.2 Knowledge of Symptoms of STI in Men :



** Figure 149 - KNOWLEDGE ON SYMPTOMS OF STI IN MEN*

72.4 percent of the study population did not know about STI symptoms in men.

10.5% of the respondents were aware that urethral discharge is a symptom of STI in males. 70% of them knew that STDs can be passed on to their partners (Figure 19)

6.4.3 STD episodes:

About 94% of the respondents have had more than one episode of sexually transmitted disease.

6.4.4 Type of STD treatment first sought :

Many STDs are asymptomatic, particularly in women, or have relatively non-specific symptoms. Who is consulted once symptoms are recognized will depend on pre-existing beliefs about the likely meaning of the symptoms, the perceived efficacy of different approaches (traditional, spiritual, allopathic) for such conditions, and the availability and accessibility of the various potential sources of help. **(Helen Ward et al 1997).**

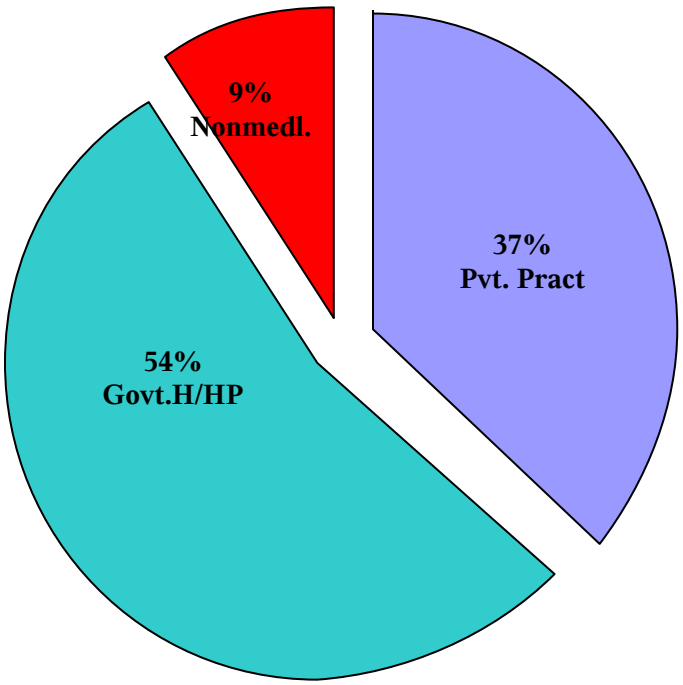
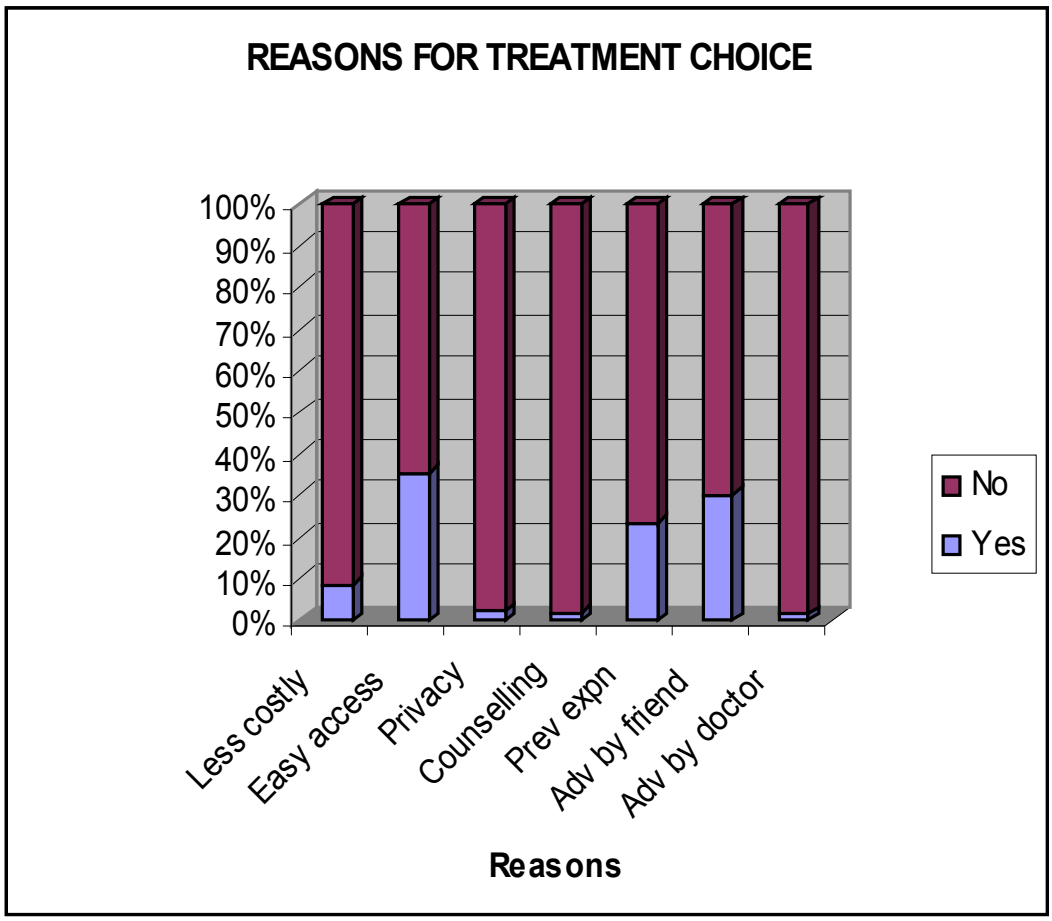


Figure 20 - TYPE OF TREATMENT FOR STD FIRST SOUGHT

In this study, more than half the patients (54%) sought treatment at a Government institution first, while 36% went to the private practitioner. 9% of them sought treatment from unqualified persons like pharmacists and traditional healers

(Figure 20). .

6.4.5 Reasons for treatment choice :



** Figure 151 - REASON FOR TREATMENT CHOICE*

Ease of access (34.3%)was by far the commonest reason for choosing the type of treatment. Advise given by friends and their own previous experience contributed to 54% of the reasons (Figure 21).

The main reasons given for having sought care in the private medical or informal sectors were convenience of access and perceived greater privacy **(Moses et al. 1994).**

6.4.6 Time of seeking treatment :

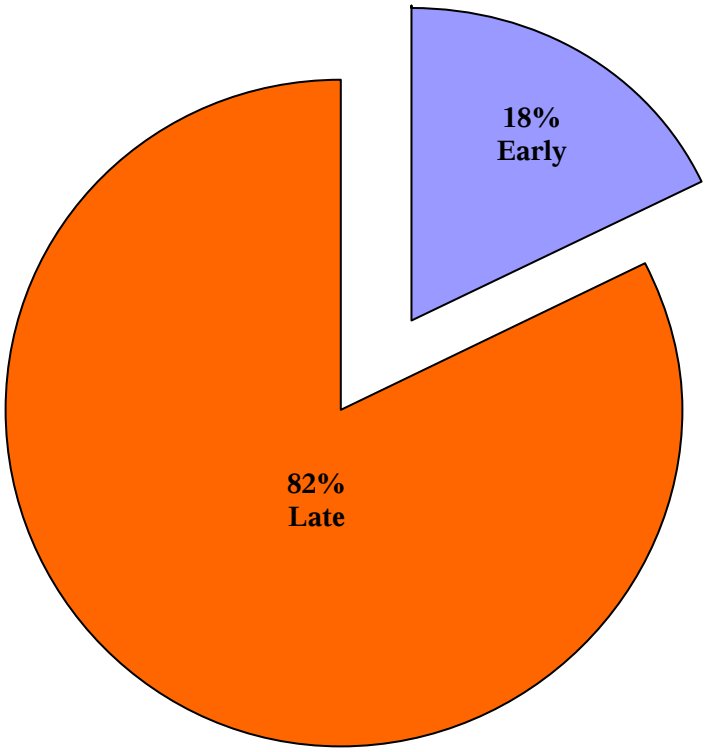
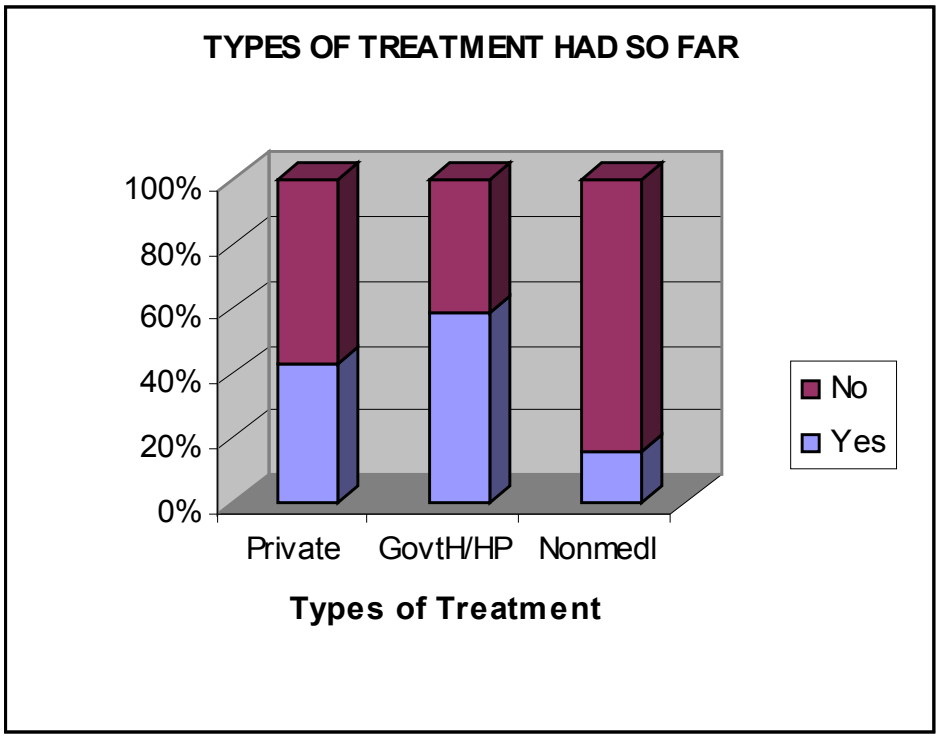


Figure 22 - TIME OF SEEKING TREATMENT

The availability of multiple sources of care, combined with uncertainty about symptoms, stigma surrounding STD and direct problems of access and affordability may lead to considerable delays in diagnosis and treatment **(Helen Ward et al 1997).** Such delays are likely to lead to an increased probability of long-term complications and to continued transmission.

Most respondents (81.8%) were late (after 2 weeks) in seeking treatment after onset of symptoms (Figure 22).

6. **Types of treatment had so far :**



7.

**Figure 163 - TYPES OF TREATMENT HAD SO FAR*

People frequently seek more than one form of health care during the course of an illness **(O'Toole 1993).**

Government institutions were the most sought after place for treatment contributing to 58.5%. (Figure 23).

The role traditional healers play cannot be over-emphasised. Furthermore, the traditional healers are located in places where the community has easy access. This makes them popular and readily relied on by communities **(Abdool Karim *et al.,* 1994).**

* These questions evoked multiple responses.

6.4.8 Residence and Time of seeking treatment:

	Early treatment	Late treatment
Rural	23	122
Urban	27	103

Table 6- RESIDENCE AND TIME LAG

chi square (df 1) = 1.11

$p > 0.05$, Not significant

Place of residence has no significant influence on the time of seeking treatment.

6.4.9 Education and Time of seeking treatment:

	Early treatment	Late treatment
Education Primary Level & Below	23	119
Education Above Primary Level	27	106

Table 7 - EDUCATION AND TIME LAG

chi square (df 1) = 0.77

$p > 0.05$, Not significant

Time of seeking treatment does not necessarily depend on the level of education.

6.4.10 **Occupation and Time of seeking treatment:**

	Early Treatment	Late Treatment
Economically Dependant	21	125
Economically Independent	29	100

Table 8 - OCCUPATION AND TIME LAG

Chi sq (df 1) = 3.03

p > 0.05, Not significant

Economic status of the woman has no influence on the time taken to seek treatment. This probably stems from the fact that in the Indian society the male partner is the decision maker.

Women even if economically independent may not perceive themselves as entitled to invest in their well being **(Sundari Ravindran).**

6.4.11 Residence and Condom use:

	Condom used	Condom Not used
Rural	25	115
Urban	44	78

Table 9 - RESIDENCE AND CONDOM USE

Chi square (df 1) = 11.38

p < 0.05, Significant at 1% level

Condom use in the urban areas is much higher than in rural areas. This may be due to the greater accessibility and higher awareness among urban residents.

6.4.12. Income and Condom use:

	Condom Used	Condom Not Used
Income -Less than Rs 1500	37	145
Income- above Rs 1500	32	48

Table 10 - INCOME AND CONDOM USE

chi square (df 1) = 11.54

$p < 0.05$, Significant at 1% level

Condom usage among the study population was influenced by their economic status. This influence cannot be interpreted as a direct function of the affordability of condoms (as the condom is not beyond the reach of the common man) but as people in the higher economic group having a positive attitude towards safe sex.

6.4.13 Knowledge that AIDS is a fatal disease and Condom use:

	Condom Used	Condom Not Used
Fatal	56	136
Not fatal	13	57

Table 11 - KNOWLEDGE THAT AIDS IS A FATAL DISEASE AND CONDOM USE

chi square (df 1) = 2.91

$p > 0.05$, Not Significant

The knowledge that AIDS is a fatal disease still does not influence condom use.

6.4.14 **Knowledge that condoms prevent AIDS and Condom use:**

	Condom Used	Condom Not Used
Condom Prevent AIDS	47	74
Condoms Do Not Prevent AIDS	22	119

Table 12 - KNOWLEDGE THAT CONDOMS PREVENT AIDS AND CONDOM USE

Chi square (df 1) = 17.14

$p < 0.05$, Significant at 1% level

The knowledge that condoms prevent AIDS increases condom usage. Preventive programmes aimed at improving consistent condom use among 15-49 age group will have a positive impact on the transmission of HIV/AIDS.

6.4.15 Source of Information

To justify the money spent on television and other forms of mass media for IEC activities, the hypothesis that Television is the only source of information was tested statistically by applying the Z test for Binomial distribution, where $p = 1$. This hypothesis was rejected. Hence it can be inferred that television is not the only source of information about HIV/AIDS and that money spent on all other channels of propaganda is fully justified.

6.4.16 Traditional Healer

The hypothesis that traditional healers do not play a role in treatment of STDs was tested applying the Z test for Binomial distribution , where p = 0. The hypothesis was rejected proving that traditional healers do have a compelling presence.

7. SUMMARY

7.1 Knowledge on HIV/AIDS

Awareness about AIDS was high among the women in this study. 96% of them had heard about AIDS .Nearly three-fourths of the respondents knew that AIDS is a fatal disease and about half of them knew that there is no cure for AIDS. That any individual is susceptible to the disease was known to 84% of the respondents. More than 80% knew that AIDS is a preventable disease .

Awareness of the routes of transmission of HIV/AIDS is a crucial component of prevention of disease. That AIDS is a sexually transmitted disease was known to more than 90% of the women. That it can also be contracted through blood transfusion was known to less than 50%. Transmission of HIV from parent-to-child during pregnancy, labour, delivery and through breastfeeding was known to only about 25% in the present study.

Television was a major source of information on HIV/AIDS and STIs (87.2%), though not the only source.

The percent of women who had received information about HIV/AIDS through the health worker was only 6.6%.

7.2 Sexual behaviour and Condom use

Single sexual partner as the best method of prevention of HIV/AIDS was known to 88% of the women in this study. Consistent condom use as a preventive method to avert HIV transmission was known to less than fifty percent (47.1%) of the respondents.

Spouse was the first sexual partner in 73.3% of patients, while **23.3% had an unknown first sexual partner**. Of those who had had sex , **7.3% were forced into the act.**

26.3% knew that their regular partner had sexual partners other than themselves. About 14.5% of the respondents themselves had more than one sexual partner.

Though 68.7% of the respondents were aware about condoms, **only 26.3% of their partners had ever used a condom.** Of those who had ever used condoms, only 50% had used it for disease prevention.

Though 129 respondents (47.1%) were aware that consistent condom use can prevent AIDS, **only 27 of them were consistent users.**

7.3 Health seeking behaviour

46% of the respondents in the present study did not know about the symptoms of STDs in women and STD symptoms in men was not known to 72% of the respondents. 70% of them knew that STDs can

be passed on to their partners.

In this study, more than half the patients (54%) sought treatment at a Government institution first, while 36% went to the private practitioner. 9% of them sought treatment from unqualified persons like pharmacists and traditional healers.

Traditional healers cannot be ignored as a service provider in the context of sexually transmitted diseases.

Ease of access (35.3%) was by far the commonest reason for choosing the type of treatment.

Most respondents (81.8%) sought treatment only after 2 weeks of onset of symptoms. The residential status of the respondents (Rural / Urban) did not influence the time taken to seek treatment .

The educational status and the economic status of the woman had no influence on the time taken to seek treatment.

Condom use in the urban areas was much higher than in rural areas.

Condom usage among the study population was influenced by their economic status. This influence cannot be interpreted as a direct function of the affordability of condoms (as the condom is not beyond the reach of the common man) but as people in the higher economic group having a positive attitude towards safe sex."

The knowledge that AIDS is a fatal disease still did not influence condom use among these respondents, but the knowledge that condoms prevent AIDS increased condom usage.

8. RECOMMENDATIONS

Health Education

1. Gaps in knowledge about STD/HIV/AIDS, modes of transmission and preventive methods need to be bridged by health education.

2. Consistent condom use as an important preventive measure needs to be stressed.

3. Women need to be educated on recognizing symptoms and seeking treatment early.

4. Health workers to be more actively involved in imparting knowledge to the public through interpersonal communication.

Training

Training of alternate service providers like pharmacists and traditional healers in disease recognition and proper management.

Sex Education

Age appropriate sex education to be introduced as early as primary level of schooling.

9. LIMITATIONS

1. As the study was hospital based, generalization of the findings to the general population may not be possible.

2. The study was done in a tertiary institute catering to a wide geographical area, and hence the findings of the study may not be region specific.

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